

# SEQUENCE LISTING

<110> Kakefuda, Genichi  
Costello, Colleen  
Sun, Ming  
Hu, Weiming

<120> Genes and Vectors for Conferring Herbicide Resistance  
in Plants

<130> 043753/241148 (5849-20A)

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<150> 60/106,239

<151> 1998-10-29

<150> 09/426,568

<151> 1999-10-22

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<170> PatentIn Ver. 2.1

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20

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| aag aga atg gaa gga ttc gtt aga agc gtc gat ggg aag atc tct gat | 248 |
| Lys Arg Met Glu Gly Phe Val Arg Ser Val Asp Gly Lys Ile Ser Asp |     |
| 55 60 65  |     |
| gcg tct ttc tcc gaa gct tca tct gcg act cca aaa tcg aag gtg agg | 296 |
| Ala Ser Phe Ser Glu Ala Ser Ser Ala Thr Pro Lys Ser Lys Val Arg |     |
| 70 75 80 85   |     |
| aag cac aca att tca gta ttt gtt gga gac gaa agc gga atg att aat | 344 |
| Lys His Thr Ile Ser Val Phe Val Gly Asp Glu Ser Gly Met Ile Asn |     |
| 90 95 100   |     |
| agg att gca gga gtg ttt gca agg aga gga tac aat att gag agt ctt | 392 |
| Arg Ile Ala Gly Val Phe Ala Arg Arg Gly Tyr Asn Ile Glu Ser Leu |     |
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| gct gtt ggt ctg aac aga gac aag gct cta ttc acc ata gtt gtc tgt | 440 |
| Ala Val Gly Leu Asn Arg Asp Lys Ala Leu Phe Thr Ile Val Val Cys |     |
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| gga act gaa agg gta ctt cag cag gtc atc gag caa ctc cag aag ctc | 488 |
| Gly Thr Glu Arg Val Leu Gln Gln Val Ile Glu Gln Leu Gln Lys Leu |     |
| 135 140 145   |     |
| gtt aat gtt cta aag gtt gaa gat atc tca agt gag ccg caa gtg gag | 536 |
| Val Asn Val Leu Lys Val Glu Asp Ile Ser Ser Glu Pro Gln Val Glu |     |
| 150 155 160 165   |     |
| cgt gag ctg atg ctt gta aaa gtg aat gca cat cca gaa tcc agg gca | 584 |
| Arg Glu Leu Met Leu Val Lys Val Asn Ala His Pro Glu Ser Arg Ala |     |
| 170 175 180   |     |
| gag atc atg tgg cta gtt gac aca ttc aga gca aga gtt gta gat ata | 632 |
| Glu Ile Met Trp Leu Val Asp Thr Phe Arg Ala Arg Val Val Asp Ile |     |
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| gcg gaa cat gca ttg act atc gag gta act gga gat cct gga aaa atg | 680 |
| Ala Glu His Ala Leu Thr Ile Glu Val Thr Gly Asp Pro Gly Lys Met |     |
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| att gct gta gaa aga aat ttg aaa aag ttt cag atc aga gag att gta | 728 |
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| cca ttt tgg cga ttt tca gca gca tcc tat cca gat ctc aag gag caa | 824  |
| Pro Phe Trp Arg Phe Ser Ala Ala Ser Tyr Pro Asp Leu Lys Glu Gln |      |
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| gcg cct gtt agt gtt ctt cga agt agc aaa aaa gga gcc att gtc cct | 872  |
| Ala Pro Val Ser Val Leu Arg Ser Ser Lys Lys Gly Ala Ile Val Pro |      |
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| caa aag gaa aca tca gca ggg gga gat gtt tat ccc gtt gag cca ttt | 920  |
| Gln Lys Glu Thr Ser Ala Gly Gly Asp Val Tyr Pro Val Glu Pro Phe |      |
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| Thr Asp Glu Asp Thr Ser Gly Leu Arg Ser His Thr Leu Ser Leu Leu |      |
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| gta aat gat att cca gga gtt ctt aat att gtg act ggt gtt ttc gct | 1064 |
| Val Asn Asp Ile Pro Gly Val Leu Asn Ile Val Thr Gly Val Phe Ala |      |
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| Arg Arg Gly Tyr Asn Ile Gln Ser Leu Ala Val Gly His Ala Glu Thr |      |
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| Lys Gly Ile Ser Arg Ile Thr Thr Val Ile Pro Ala Thr Asp Glu Ser |      |
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| gtc agc aaa ttg gtg cag caa ctt tac aaa ctc gta gat gtg cat gag | 1208 |
| Val Ser Lys Leu Val Gln Gln Leu Tyr Lys Leu Val Asp Val His Glu |      |
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| gtc cat gat ctt act cat ttg cca ttt tct gaa aga gaa ctg atg ctg | 1256 |
| Val His Asp Leu Thr His Leu Pro Phe Ser Glu Arg Glu Leu Met Leu |      |
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| att aag att gcc gtg aac gct gct gct aga aga gat gtc ctg gac att | 1304 |
| Ile Lys Ile Ala Val Asn Ala Ala Ala Arg Arg Asp Val Leu Asp Ile |      |
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gca ttg gct cgt gaa tcg gga gtg gac tcc aag tac ctt cgt gga tac 1496  
 Ala Leu Ala Arg Glu Ser Gly Val Asp Ser Lys Tyr Leu Arg Gly Tyr  
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 Ser Phe Leu Leu Thr Gly  
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Gly Asp Glu Met Gly Lys Arg Met Glu Gly Phe Val Arg Ser Val Asp  
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Gly Lys Ile Ser Asp Ala Ser Phe Ser Glu Ala Ser Ser Ala Thr Pro  
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Lys Ser Lys Val Arg Lys His Thr Ile Ser Val Phe Val Gly Asp Glu  
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Ser Gly Met Ile Asn Arg Ile Ala Gly Val Phe Ala Arg Arg Gly Tyr  
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Asn Ile Glu Ser Leu Ala Val Gly Leu Asn Arg Asp Lys Ala Leu Phe  
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Thr Ile Val Val Cys Gly Thr Glu Arg Val Leu Gln Gln Val Ile Glu  
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Gln Leu Gln Lys Leu Val Asn Val Leu Lys Val Glu Asp Ile Ser Ser  
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Glu Pro Gln Val Glu Arg Glu Leu Met Leu Val Lys Val Asn Ala His  
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Pro Glu Ser Arg Ala Glu Ile Met Trp Leu Val Asp Thr Phe Arg Ala  
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Arg Val Val Asp Ile Ala Glu His Ala Leu Thr Ile Glu Val Thr Gly  
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Asp Pro Gly Lys Met Ile Ala Val Glu Arg Asn Leu Lys Lys Phe Gln  
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Pro Val Glu Pro Phe Phe Asp Pro Lys Val His Arg Ile Leu Asp Ala  
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His Trp Gly Leu Leu Thr Asp Glu Asp Thr Ser Gly Leu Arg Ser His  
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Gly His Ala Glu Thr Lys Gly Ile Ser Arg Ile Thr Thr Val Ile Pro  
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